
Public Safety Personnel Retirement System Corrections Officer Retirement Plan

Defined Contribution and Retirement
Study Committee Meeting
November 27, 2012

Data & Projection Refinements

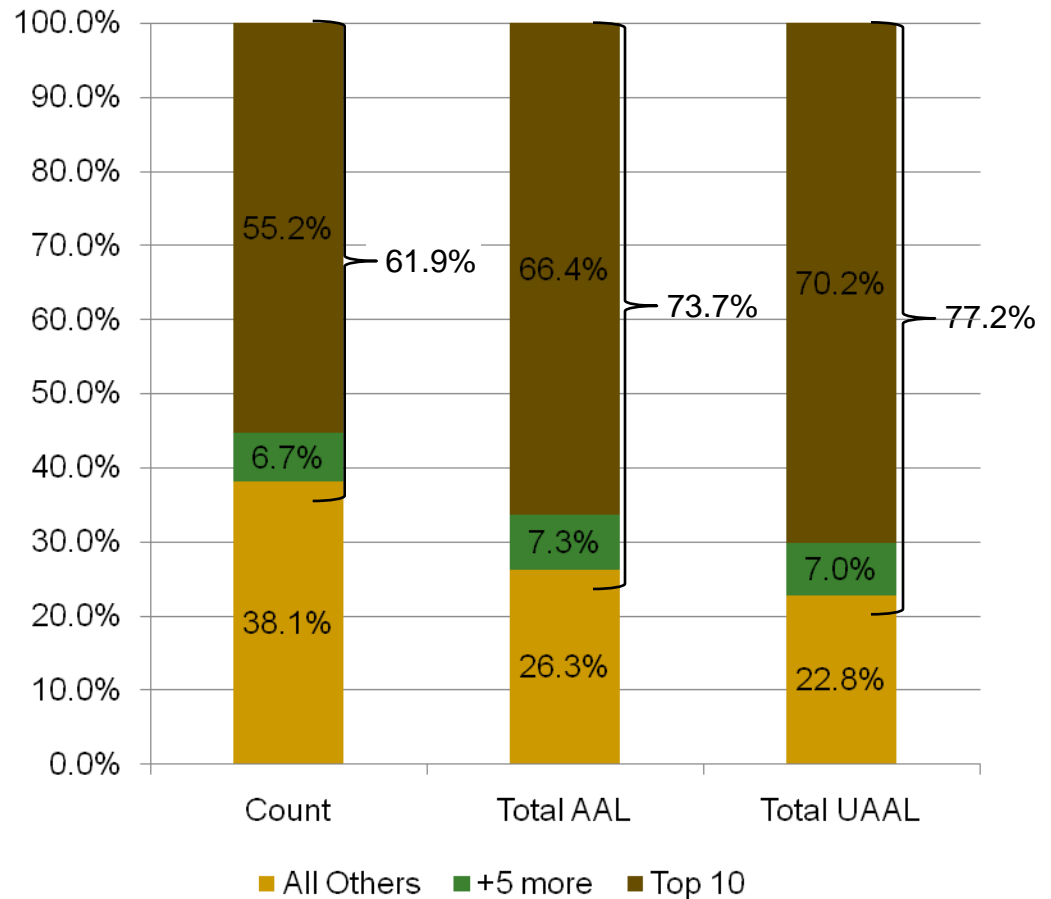
Multi-Employer Groups

Various Scenarios

Scenario 1

Top 10-15 Employers v. All Others

1. Phoenix Police Department
2. Phoenix Fire Department
3. Department of Public Safety
4. Mesa Police Department
5. Tucson Police Department
6. Maricopa County Sheriff's Office
7. Tucson Fire Department
8. Mesa Fire Department
9. Scottsdale Police Department
10. Pima County Sheriff's Department
11. Glendale Police Department
12. Chandler Police Department
13. Tempe Police Department
14. Glendale Fire Department
15. Chandler Fire Department

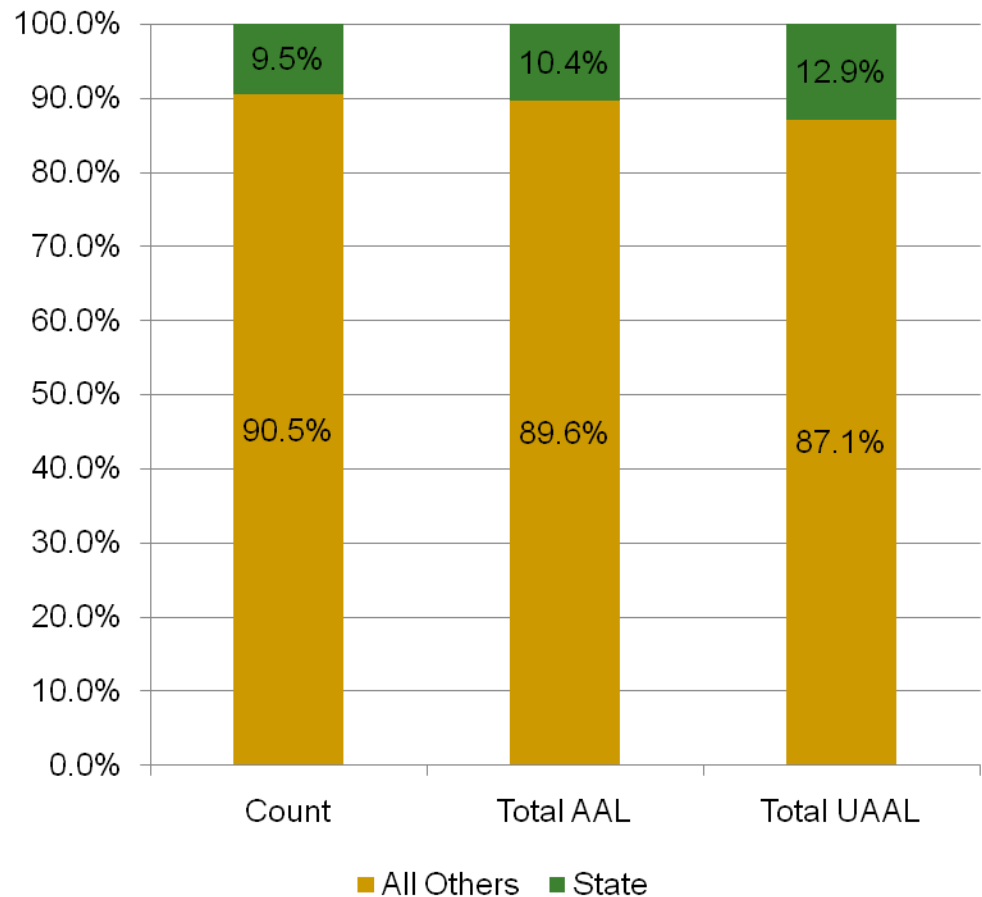


Percentages are based on June 30, 2012 valuations. Count is total membership (actives, vested, DROP, retired). AAL = Actuarial Accrued Liability. UAAL = Unfunded AAL.

Scenario 2

State Agencies v. All Others

- ASU Campus Police
- AZ Attorney General Investigators
- AZ Department of Emergency & Military Affairs
- AZ Department of Liquor License & Control Investigators
- AZ Department of Public Safety
- AZ Game and Fish Department
- AZ State Park Rangers
- NAU Campus Police
- U of A Campus Police Department

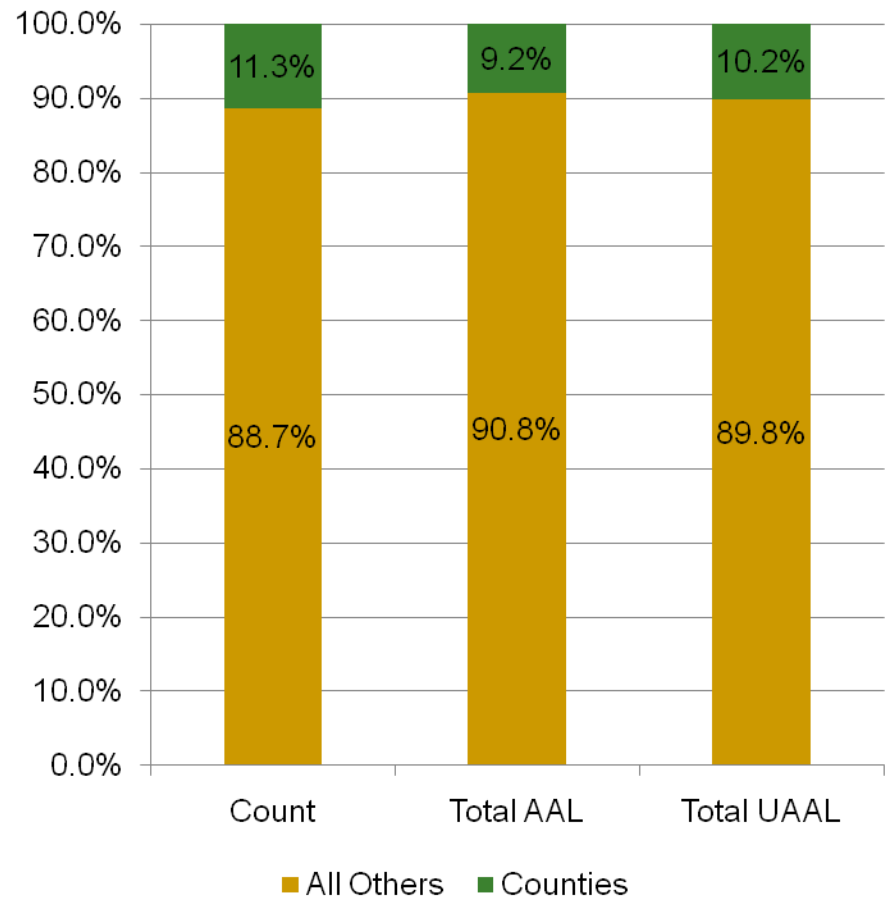


Percentages are based on June 30, 2012 valuations. Count is total membership (actives, vested, DROP, retired). AAL = Actuarial Accrued Liability. UAAL = Unfunded AAL.

Scenario 3

County Employers v. All Others

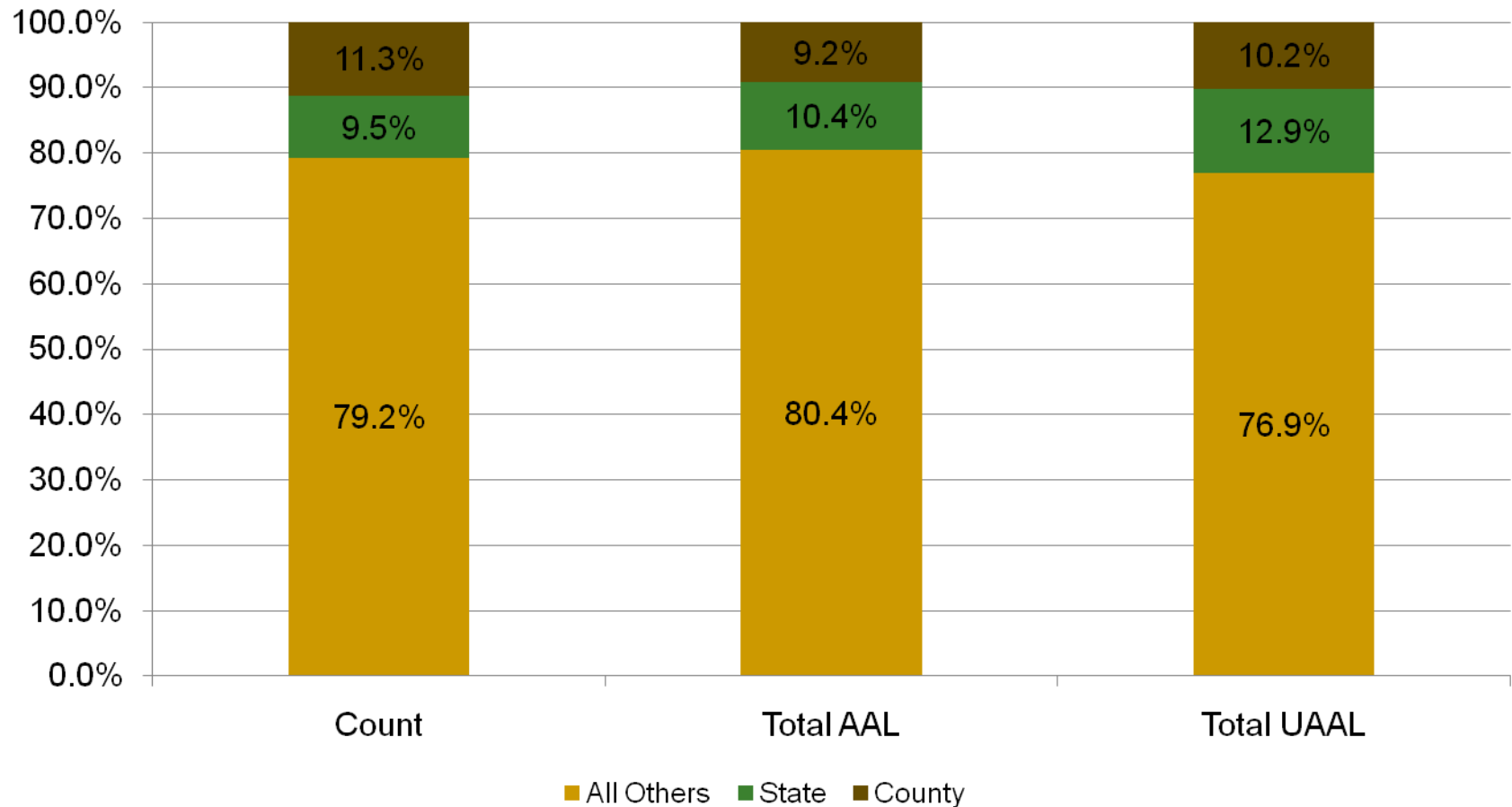
- Apache County Sheriff's Office
- Cochise County Sheriff's Office
- Coconino County Sheriff's Office
- Gila County Sheriff's Office
- Graham County Attorney Investigators
- Graham County Sheriff's Office
- Greenlee County Attorney Investigators
- Greenlee County Sheriff's Office
- La Paz County Attorney Investigators
- La Paz County Sheriff's Office
- Maricopa County Attorney Investigators
- Maricopa County Park Rangers
- Maricopa County Sheriff's Office
- Mohave County Sheriff's Office
- Navajo County Attorney Investigators
- Navajo County Sheriff's Office
- Pima County Attorney Investigators
- Pima County Comm. College Police
- Pima County Sheriff's Office
- Pinal County Sheriff's Office
- Santa Cruz County Sheriff's Office
- Yavapai County Attorney Investigators
- Yavapai County Sheriff's Office
- Yuma County Sheriff's Office



Percentages are based on June 30, 2012 valuations. Count is total membership (actives, vested, DROP, retired). AAL = Actuarial Accrued Liability. UAAL = Unfunded AAL.

Scenario 4

State Agencies v. County Employers v. All Others



Percentages are based on June 30, 2012 valuations. Count is total membership (actives, vested, DROP, retired). AAL = Actuarial Accrued Liability. UAAL = Unfunded AAL.

Scenario 5

State Agencies & County Employers v. All Others



Percentages are based on June 30, 2012 valuations. Count is total membership (actives, vested, DROP, retired). AAL = Actuarial Accrued Liability. UAAL = Unfunded AAL.

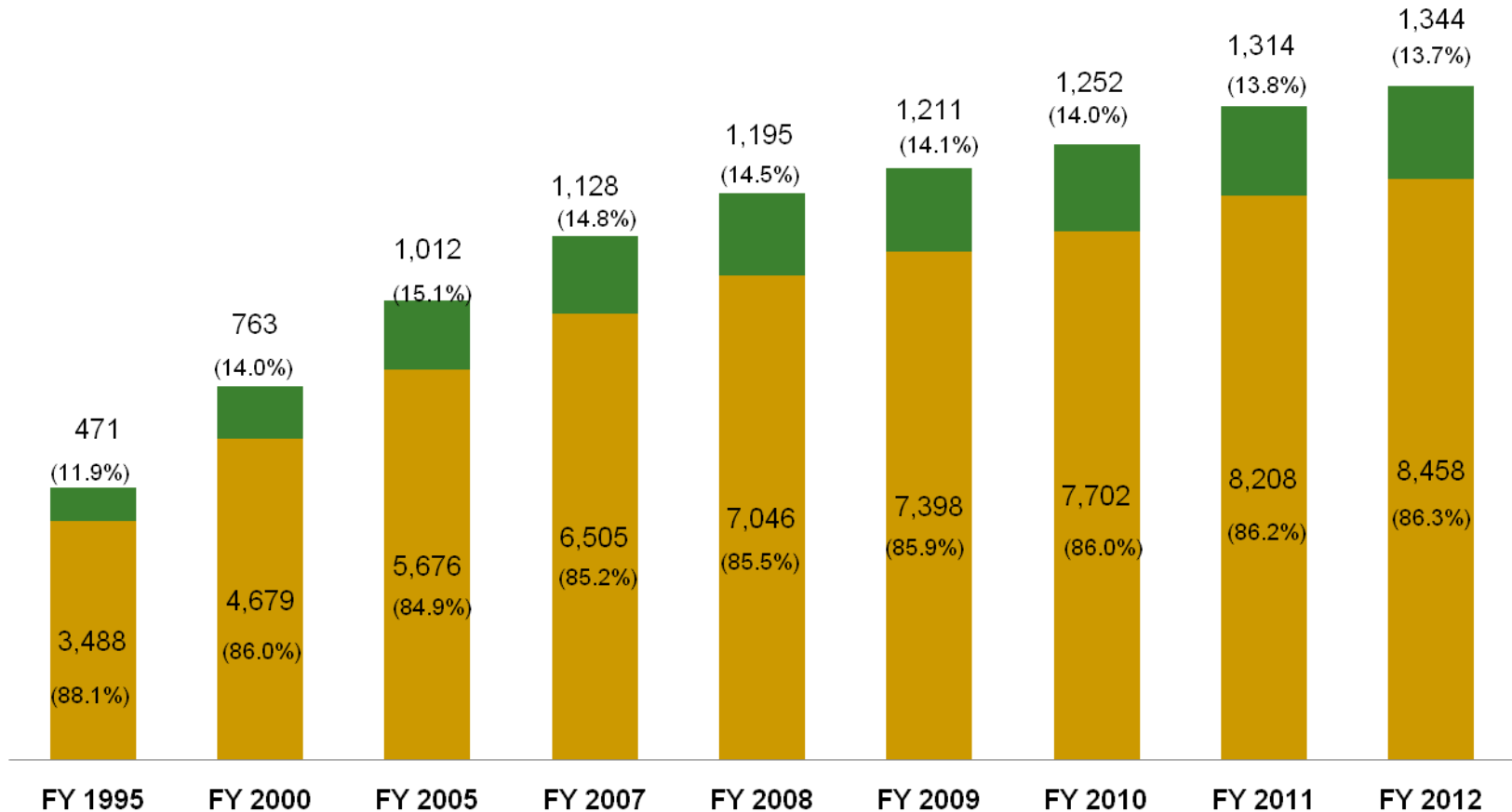
Disabilities

PSPRS & CORP

Historical Pension Distributions

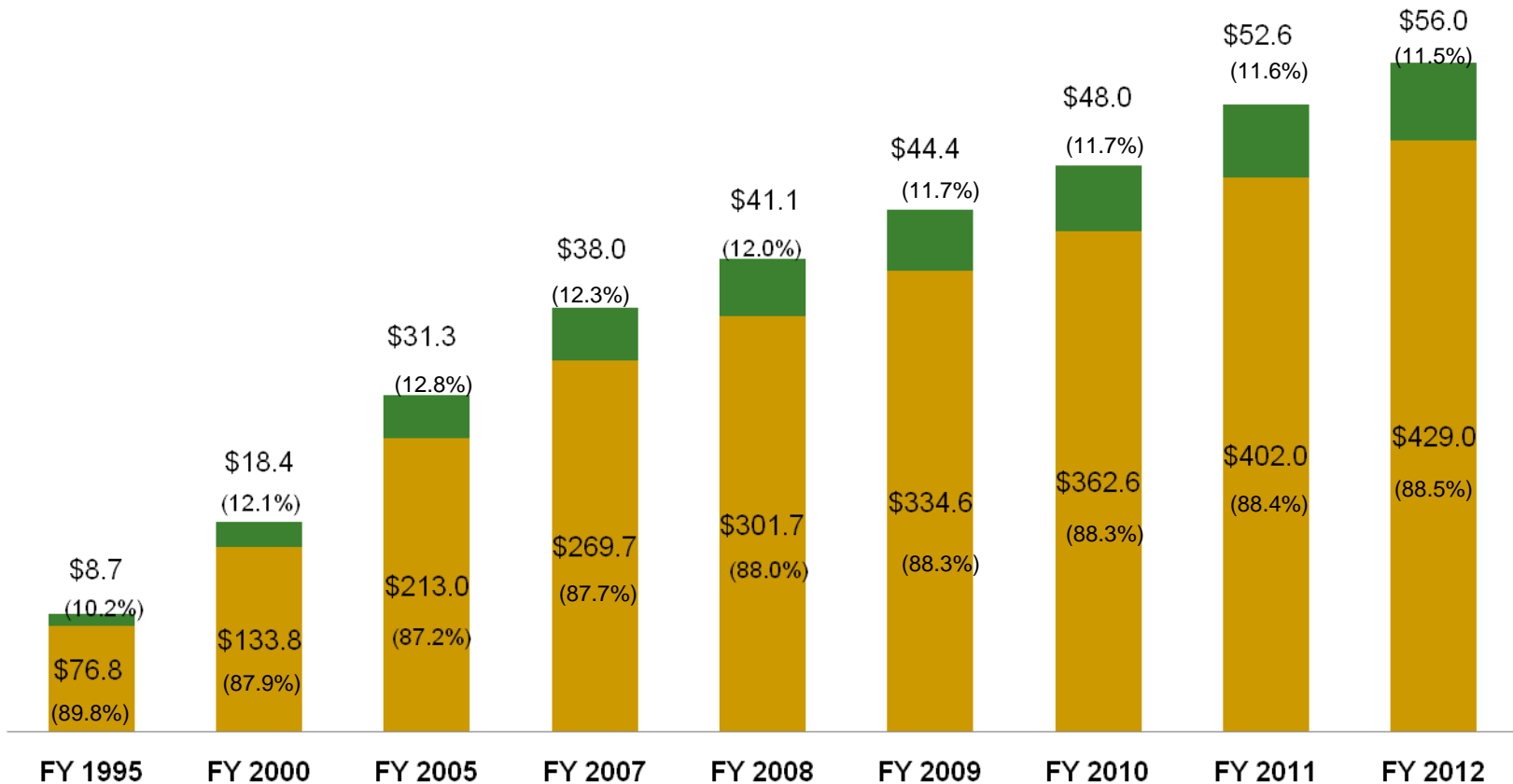
PSPRS Pension Distribution by Numbers

■ Normal (includes survivors) ■ Disability



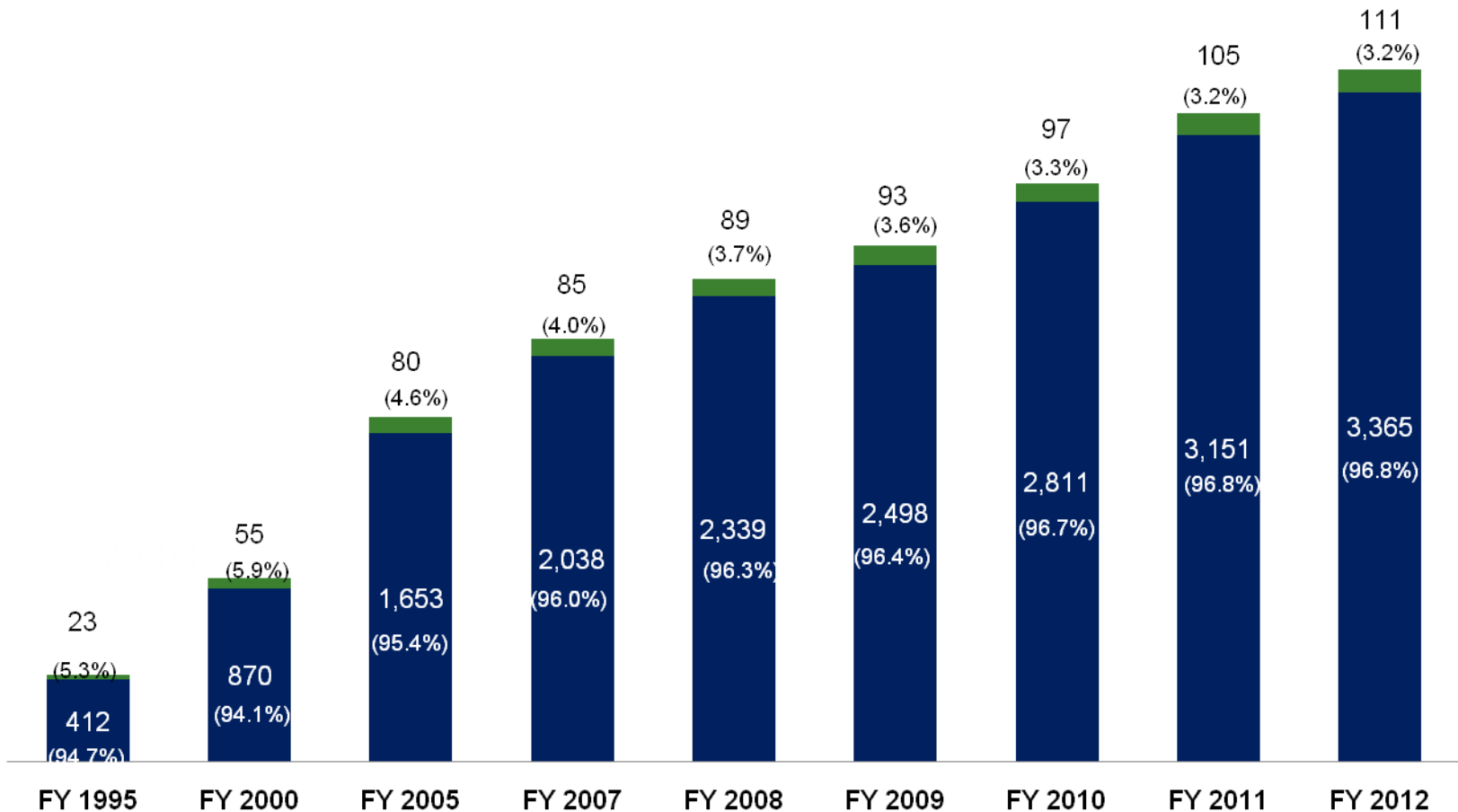
PSPRS Pension Distribution by Dollars (in millions)

■ Normal (includes survivors) ■ Disability



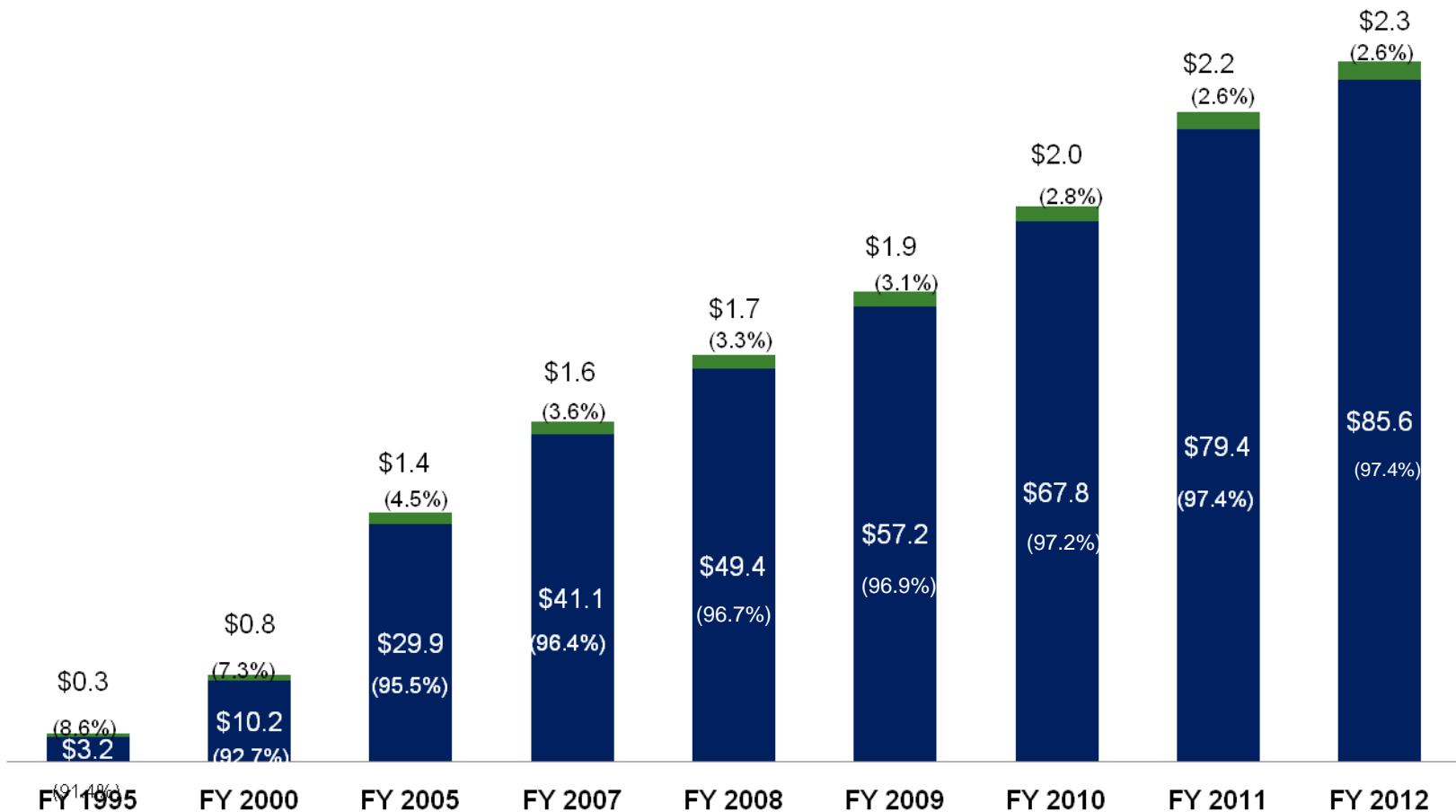
CORP Pension Distribution by Numbers

■ Normal (includes survivors) ■ Disability

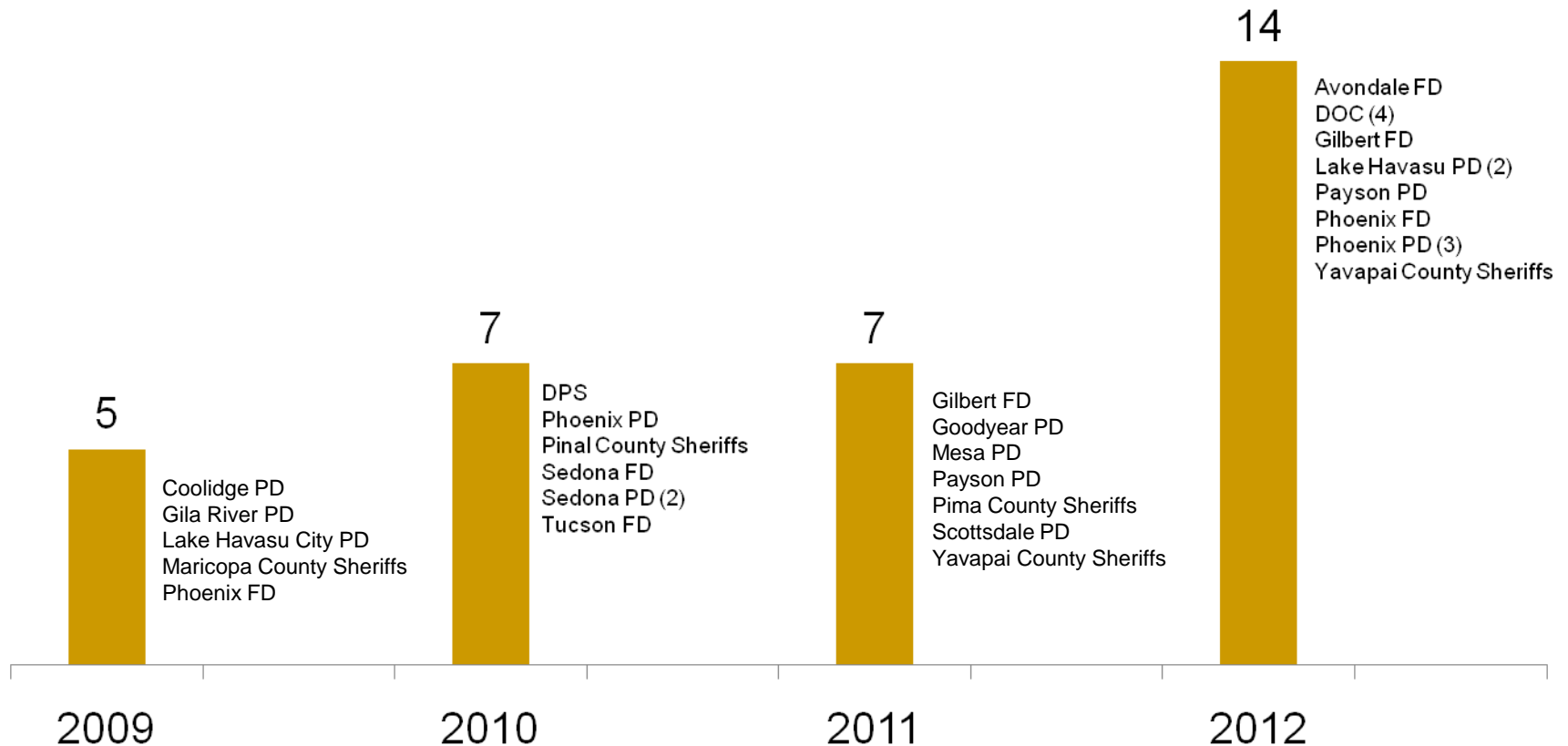


CORP Pension Distribution by Dollars (in millions)

■ Normal (includes survivors) ■ Disability

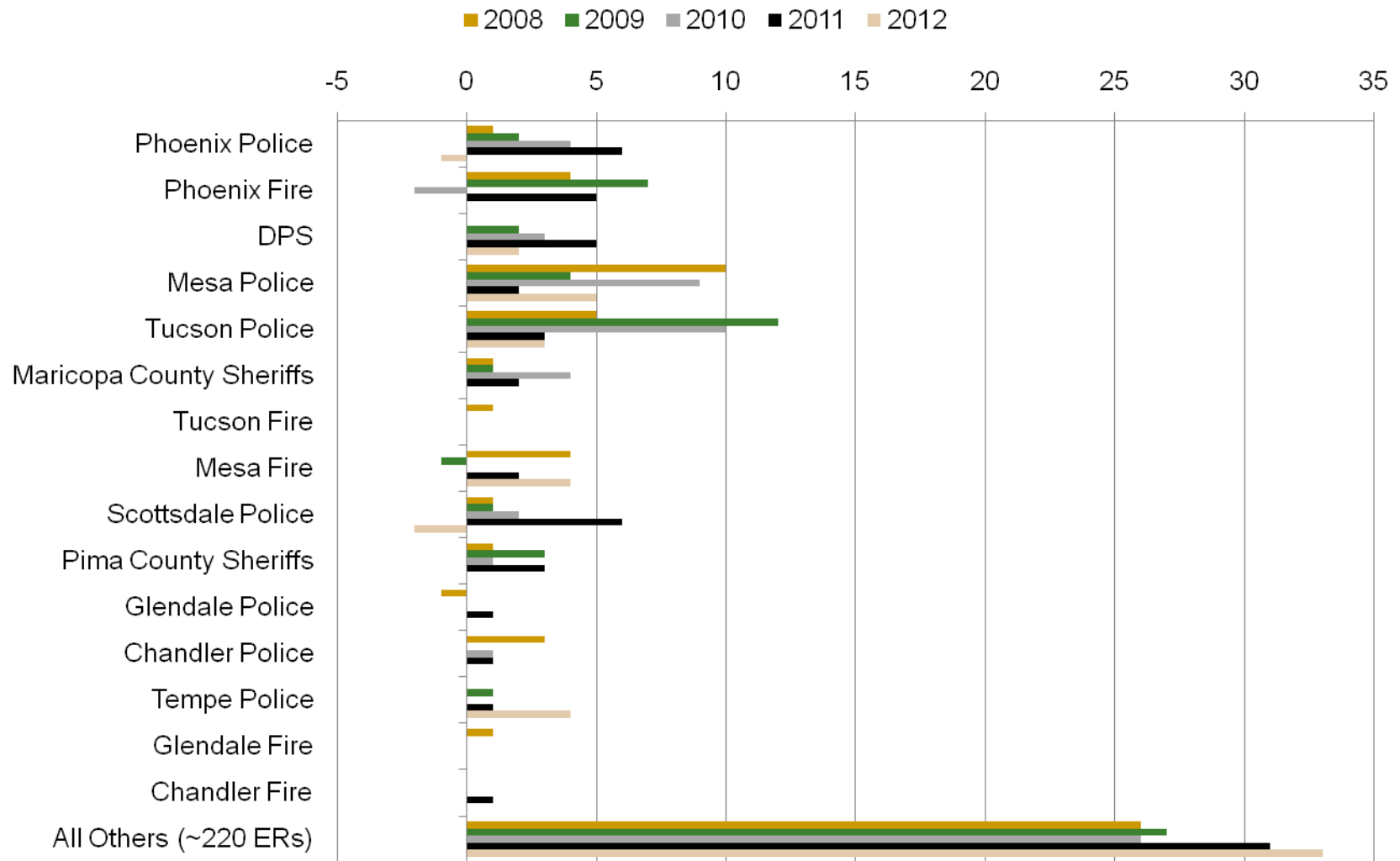


Disabilities Denied by Local Boards



This graph represents disabilities ultimately denied by various Local Boards based on a review of their minutes submitted to the PSPRS Administrative Office. The practice of logging these denials was not in place prior to 2009. It should also be noted that very few, if any, disabilities granted by the Local Boards are denied by the Administrative Office. The more likely scenario is that the information provided to our office is insufficient to support the Local Board decision and is therefore returned for clarification that must be addressed in their meeting and minutes.

5-Year Disability Claims by PSPRS Top 15

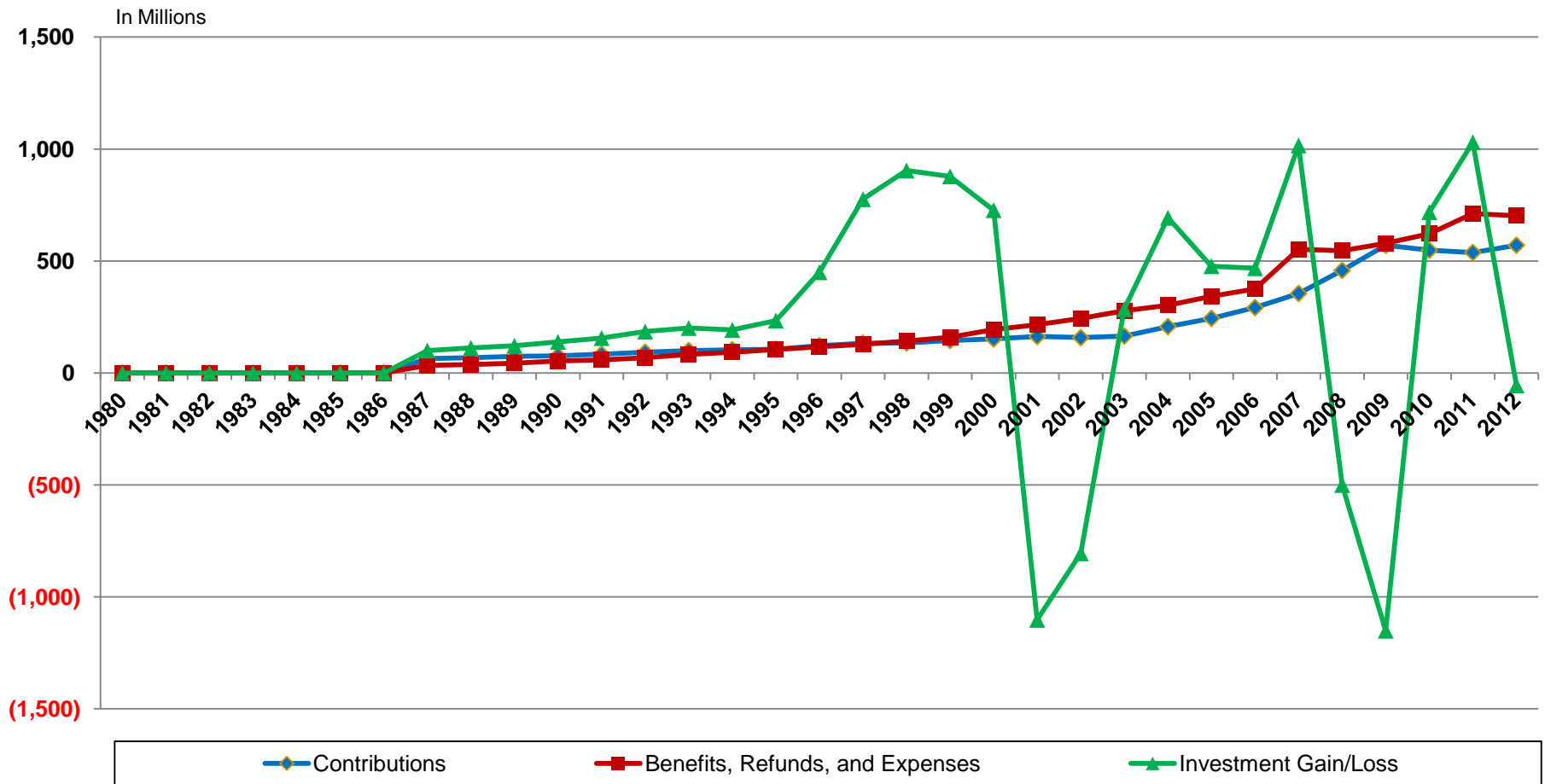


This graph represents the change in disabilities from year-to-year to represent the annual claims granted by each respective Local Board. A negative claim, as indicated above, can represent either a member coming off temporary disability or a disability no longer being paid due to death.

Contributions, Expenses, & Investment Earnings (Losses)

TOTAL FUND

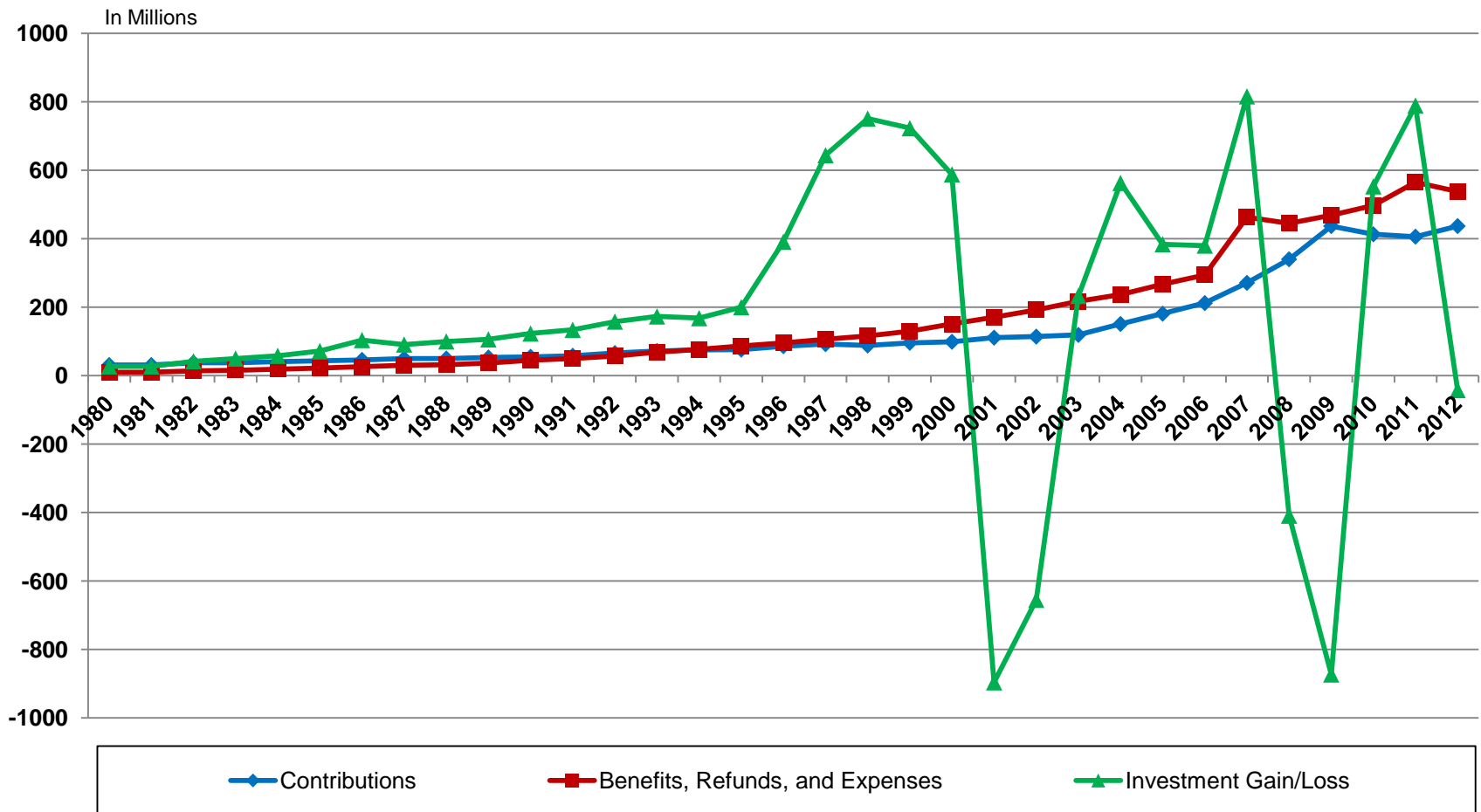
Contributions vs. Benefits, Refunds, & Expenses vs. Investment Earnings (Losses)



**Includes employee contributions, employer contributions and service purchases*

PSPRS

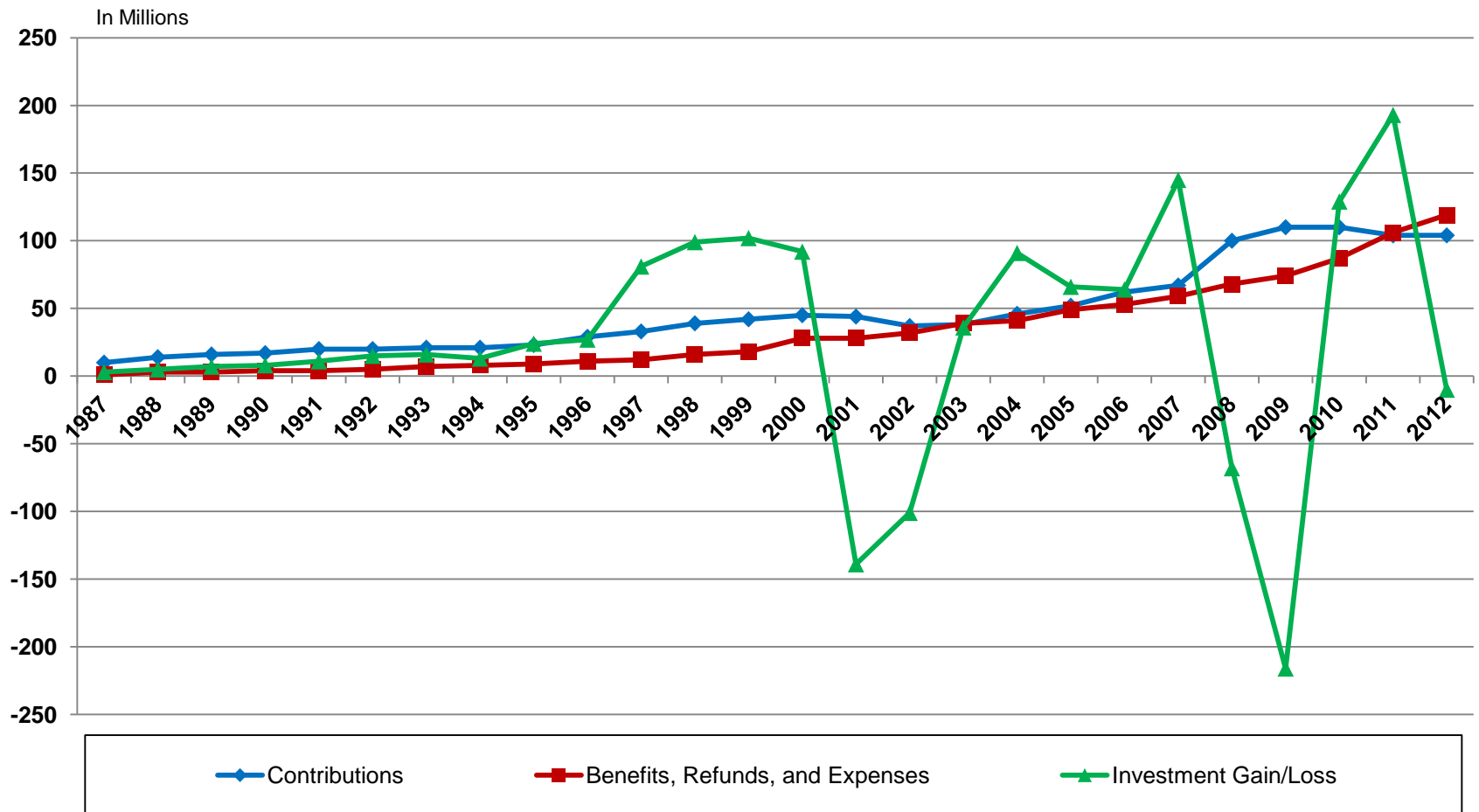
Contributions vs. Benefits, Refunds, & Expenses vs. Investment Earnings (Losses)



**Includes employee contributions, employer contributions and service purchases*

CORP

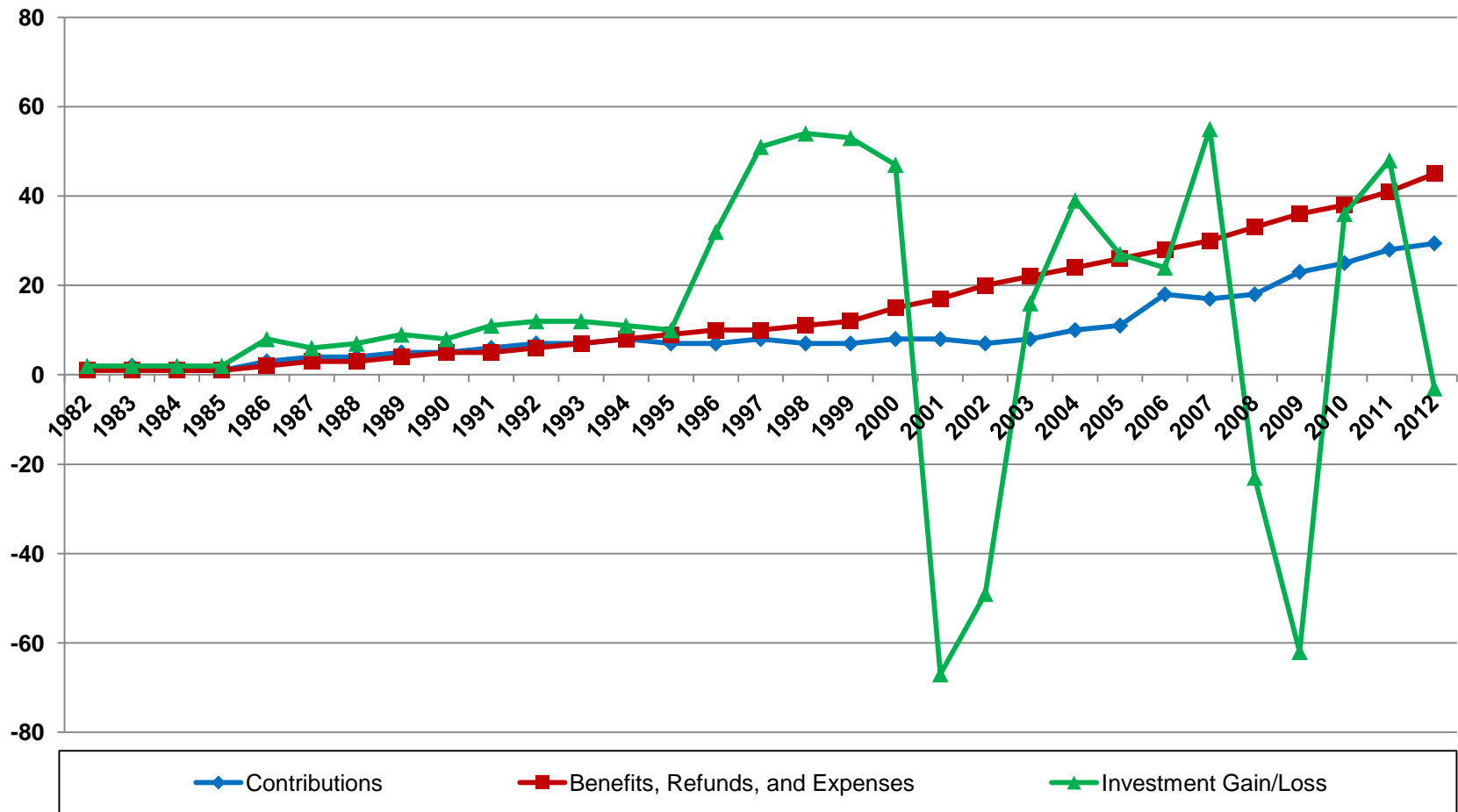
Contributions vs. Benefits, Refunds, & Expenses vs. Investment Earnings (Losses)



**Includes employee contributions, employer contributions and service purchases*

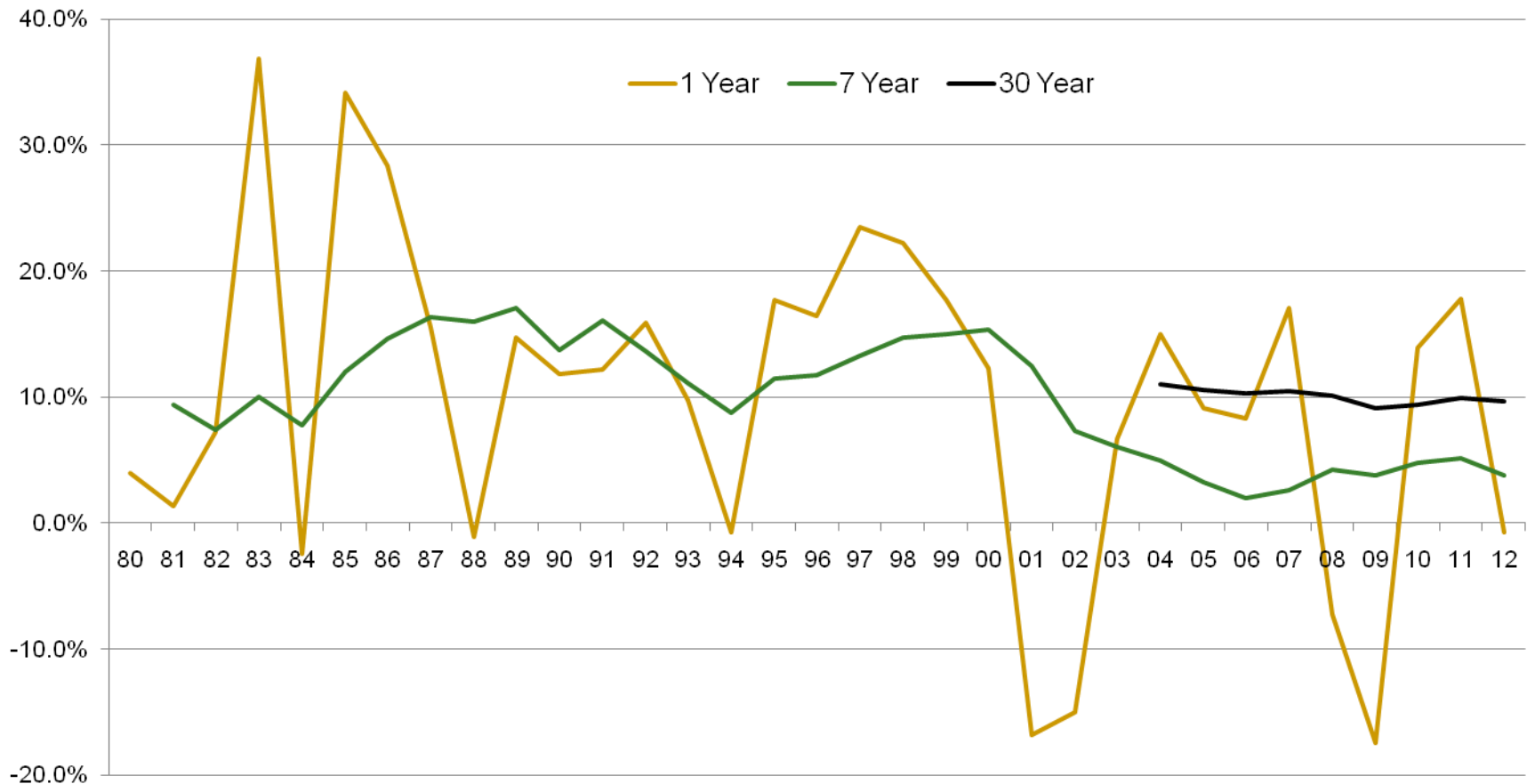
EORP

Contributions vs. Benefits, Refunds, & Expenses vs. Investment Earnings (Losses)



**Includes employee contributions, employer contributions and service purchases*

Time Series of Investment Returns



This graph represents the total investment returns as of June 30 for PSPRS. Returns for EORP (beginning in 1982) and CORP (beginning in 1987) are very similar as to overlap the above. Beginning in 2009, legislative changes allowed all three funds to be invested on a unitized basis, thereby allowing their returns to be identical. Returns are annualized for periods greater than 1 year.

Projected Contribution Rates & Funding Levels

PROJECTED CONTRIBUTION RATES

(Represents the probability that contributions will be at most this percent of payroll – based on June 30, 2012 valuation results for PSPRS and EORP and June 30, 2010 valuation results for CORP. Projections for CORP using 2012 results are not available at this time.)

	PSPRS		EORP			CORP	
Valuation Date	50% Probability	75% Probability	50% Probability	75% Probability	Valuation Date	50% Probability	75% Probability
2012	29.1%	29.1%	38.1%	38.1%	2010	8.3%	8.3%
2017	34.2%	35.8%	39.6%	41.4%	2015	12.4%	13.0%
2022	33.8%	38.5%	35.6%	40.3%	2020	12.0%	14.0%
2027	29.9%	38.8%	29.5%	37.1%	2025	11.8%	15.2%
2032	21.8%	30.4%	18.9%	26.2%	2030	9.1%	13.3%
2037	16.1%	25.5%	14.6%	22.1%	2035	6.9%	11.6%
2042	12.1%	22.7%	10.0%	19.4%	2040	6.0%	10.2%
2047	8.6%	20.6%	10.0%	18.0%	2045	6.0%	9.3%
2052	8.0%	20.0%	10.0%	17.7%	2050	6.0%	9.0%

PROJECTED FUNDING LEVELS

(Represents the probability that the funded level will be at least this percent – based on June 30, 2012 valuation results for PSPRS and EORP and June 30, 2010 valuation results for CORP. Projections for CORP using 2012 results are not available at this time.)

	PSPRS		EORP			CORP	
Valuation Date	50% Probability	75% Probability	50% Probability	75% Probability	Valuation Date	50% Probability	75% Probability
2012	60.1%	60.1%	59.6%	59.6%	2010	83.8%	83.8%
2017	59.8%	56.7%	56.3%	53.2%	2015	66.2%	63.5%
2022	70.0%	62.5%	66.8%	58.2%	2020	73.1%	66.0%
2027	81.0%	71.3%	80.0%	69.4%	2025	79.9%	71.0%
2032	89.5%	80.0%	90.7%	81.8%	2030	86.4%	76.7%
2037	93.9%	84.0%	96.2%	87.4%	2035	91.0%	80.9%
2042	98.1%	86.8%	101.1%	90.0%	2040	96.8%	84.7%
2047	100.5%	89.5%	104.2%	91.4%	2045	102.6%	87.8%
2052	104.2%	90.3%	108.4%	92.4%	2050	108.0%	89.5%

PROJECTED FUNDING LEVELS & CONTRIBUTION RATES

Current Assumed Earnings Rate of 8% versus Assumed Earnings Rate of 5%

June 30, 2012 Valuation Results

	PSPRS		CORP		EORP	
	8%	5%	8%	5%	8%	5%
Actuarial Liability (millions)	10,326	14,558	2,232	3,338	610	833
Assets (millions)	6,052	6,052	1,513	1,513	356	356
Funded Ratio	58.6%	41.6%	67.8%	45.3%	58.4%	42.7%
Total Employer Contribution	30.44%	56.25%	13.68%	31.13%	39.62%	64.29%